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CALIFORNIA REGIONAL WATER  
QUALITY CONTROL BOARD  
LOS ANGELES REGION

BROWN AND  
CALDWELL

July 22, 2004

Mr. Mohammad Zaidi  
Regional Water Quality Control Board  
320 West 4<sup>th</sup> Street, Suite 200  
Los Angeles, California 90013

12/22946-100

Subject: Annual Groundwater Sampling Report – July 2004  
5030 Firestone Boulevard and 9301 Rayo Avenue  
South Gate, California

Dear Mr. Zaidi:

On behalf of Jervis B. Webb Company of California (Webb of California), Brown and Caldwell is submitting this annual report to the Los Angeles Regional Water Quality Control Board (RWQCB) for environmental activities completed at 5030 Firestone Boulevard and 9301 Rayo Avenue, South Gate, California (site) (Figure 1). This report summarizes the activities, including groundwater monitoring and sampling performed at the site, completed on June 2, 2004 and June 17, 2004.

## BACKGROUND

Numerous subsurface investigations have been performed at the subject site since 1998. Erler and Kalinowski, Inc. (EKI) completed several investigations at the site between 1998 and 2001 that included nine CPT borings, 37 soil gas probe locations, 19 soil borings, nine PIPP groundwater samples, five groundwater monitoring wells, and collection and analysis of 78 soil samples. Additionally, EKI operated and maintained a soil vapor extraction (SVE) system at the site from March 2000 until October 2001 removing approximately 177 pounds of volatile organic compounds (VOCs) from the soil, primarily trichloroethylene (TCE).

IT Corporation advanced five soil borings to determine how effectively the SVE system had removed soil contamination. IT Corporation collected 40 additional soil samples, and analyzed them for VOCs. Subsequently, IT Corporation submitted a Soil Closure Report dated October 3, 2001 to the RWQCB and obtained soil closure for the site in a letter issued by the RWQCB dated January 23, 2002.

Quarterly groundwater sampling has been conducted at the site by EKI from March 1998 until June 2001. The sampling frequency was reduced to semi-annually in 2002. Subsequent semi-annual sampling events were conducted by Brown and Caldwell in July

2002, January 2003, and July, 2003. Annual sampling commenced this year and metals were removed from the monitoring program.

The current annual groundwater sampling event was performed on June 2, 2004 and June 17, 2004 by Brown and Caldwell. Groundwater elevation measurements, groundwater quality data, and analytical results for the current and historic sampling events are provided in Tables 1 & 2 and Appendices A & B of this report.

## **COMPLETED SCOPE OF WORK**

The scope of work performed during this reporting period included collection and analysis of water samples collected from groundwater monitoring wells located on and off-site (Figure 2). Groundwater samples were collected using passive diffusion bags (PDBs). Groundwater sampling using PDBs was approved by the RWCQB in correspondence dated January 2002. All work was performed under the supervision of a California Registered Geologist. Work was performed under a site-specific health and safety plan (HASP) prepared by Brown and Caldwell.

## **GROUNDWATER SAMPLING**

### **Passive Diffusion Bag Sampling**

The groundwater monitoring and sampling event was performed by Brown and Caldwell personnel on June 2, 2004 and June 17, 2004. The field activities included depth-to-water measurements, total well depth measurements, and the installation of PDBs in groundwater monitoring wells MW-1 through MW-5 (Figure 2).

Prior to the installation of the PDBs on June 2, 2004, depth-to-water and total well depth were measured in each well to the nearest hundredth of a foot using an electronic water level indicator. The probe was decontaminated between wells with Alconox detergent solution and tap water rinse followed by a final rinse with deionized water. The surveyed north side of the top edge of each well was used as a measuring point reference.

The PDBs were provided by the laboratory, Columbia Analytical Services (Columbia), pre-filled with deionized water. The bags were suspended from weighted cables at the target depth in their respective wells (one bag per well). The target depths were at either the middle or bottom of the wells and were determined based on the highest concentrations reported during previous PDB groundwater sampling events conducted by IT and Brown and Caldwell. The PDBs remained in monitoring wells MW-1 through MW-5 for fifteen days, thus allowing them to equilibrate with the surrounding groundwater in the wells.

On June 17, 2004 the PDBs were removed from each well. At the time of sampling, the PDBs were removed from the wells (MW-1 through MW-5) and groundwater samples were collected directly from the PDBs. A total of 5 groundwater samples were collected and containerized in pre-cleaned laboratory supplied bottles on June 17, 2004. No duplicate sample was collected due to an insufficient amount of available sample water.

Groundwater samples were labeled with the site location, sample identification number, date and time of collection, sampler's initials, and logged on a chain-of-custody form. One set of trip blank samples was also submitted to the laboratory for analysis with the collected PDB samples. All samples were stored in an ice-chilled cooler at approximately 4 degrees Celsius. The groundwater samples were submitted to Columbia, a California certified laboratory, under Brown and Caldwell chain-of-custody protocols.

Groundwater samples were analyzed for VOCs using United States Environmental Protection Agency (USEPA) Method 8260B. The laboratory analytical results of the groundwater samples are provided in Appendix A of this report.

## RESULTS

### Site Hydrogeology

Groundwater elevations within each well (MW-1 through MW-5) were monitored on June 2, 2004 and June 17, 2004. Groundwater elevations ranged from 55.51 feet above mean sea level (ft. amsl) in well MW-4 to 58.40 ft. amsl in well MW-2. The water surface elevations recorded during the June 2004 sampling event indicate the potentiometric surface has risen in elevation since the June/July 2003 event, with an average increase of 0.93 feet. The water surface elevation in all five wells has increased since July 2003 with a maximum increase of 1.42 feet observed in well MW-2.

The direction of groundwater flow on June 2, 2004 and June 17, 2004 was southeasterly, which is consistent with previous sampling events. Figure 3 depicts the groundwater potentiometric surface on June 17, 2004. The gradient averages approximately 0.42 vertical feet per 100 lateral feet (0.0042 ft/ft). Depth to groundwater and groundwater elevations for the monitoring wells are presented in Table 1.

### Groundwater Sampling

**VOCs.** Groundwater samples collected from wells MW-1 through MW-5 were analyzed for VOCs. Current and historical analytical data from previous sampling events are presented in Table 2. Detected concentrations of trichloroethylene (TCE) from the current event are similar to those reported during previous events and ranged from 486.3 micrograms per liter ( $\mu\text{g/l}$ ) in MW-3 to 17864.4  $\mu\text{g/l}$  in MW-1. No detectable TCE was found in well MW-4.

Figure 4 represents a map of TCE concentrations in groundwater samples collected during the June 2004 sampling event. Based on this data, the TCE plume size and shape have remained stable since groundwater sampling commenced in 1998. Various chlorinated VOC degradation compounds were detected in four of the five wells, including cis-1,2-dichloroethene (high of 340 µg/l in MW-5), trans-1,2-dichloroethene (high of 59.3 µg/l in MW-1), and 1,1-dichloroethene (high of 72.7 µg/l in MW-1). Downgradient well MW-4 did not contain VOCs. The presence of elevated concentrations of VOCs in upgradient well MW-2 suggests that VOCs are migrating on-site from a hydraulically upgradient off-site source.

A summary of the VOC analytical results from the June 2004 annual sampling event is presented in Table 2. A copy of the laboratory analytical report and chain-of-custody forms are presented in Attachment A.

## SUMMARY

The following provides a summary of results based on data collected during the June 2004 semi-annual sampling event:

- Five existing groundwater monitoring wells were sampled and analyzed for VOCs using PDBs.
- Groundwater surface elevations have increased an average of 0.93 feet since the last sampling event.
- Groundwater flow direction is to the southeast, which is consistent with previous sampling events.
- The TCE plume size and shape remains consistent with previous sampling events, suggesting the plume is stable.
- VOC concentrations from the June 2004 event are generally lower, but similar to previous events, with the highest detected concentrations observed in wells MW-1.
- Downgradient well MW-4 was non-detect for VOCs.
- Elevated VOCs were detected in upgradient well MW-2 indicating that VOCs may be migrating on-site from an off-site source.

Mr. Mohammad Zaidi  
July 22, 2004  
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## FUTURE SAMPLING

Data from the June 2004 annual sampling event and previous sampling events since 1998 suggests the plume has remained stable over several events. The next sampling event for VOCs is scheduled to commence in June 2005.

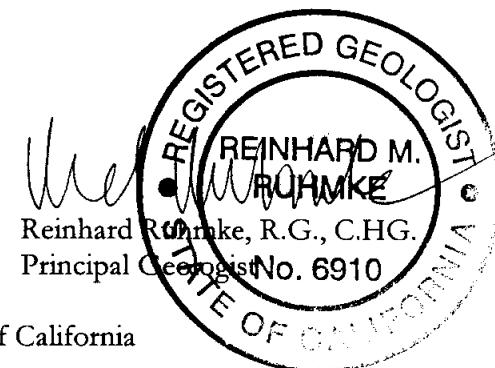
If you have any further questions, please do not hesitate to contact me at (714) 689-4840.

Very truly yours,

BROWN AND CALDWELL



Michael Crews  
Project Geologist



cc: Michael Farley – Jervis B. Webb Company of California  
Project file

Encl. Figures 1-4  
Tables 1 and 2  
Appendix A: Laboratory Analytical Reports and Chain of Custody Forms  
Appendix B: Well Monitoring Forms

## References:

Brown and Caldwell, 2003, Semi-Annual Groundwater Sampling Report – July 2003,  
5030 Firestone Boulevard and 9301 Rayo Avenue, South Gate, California,  
Consultant Report dated July 30, 2003.

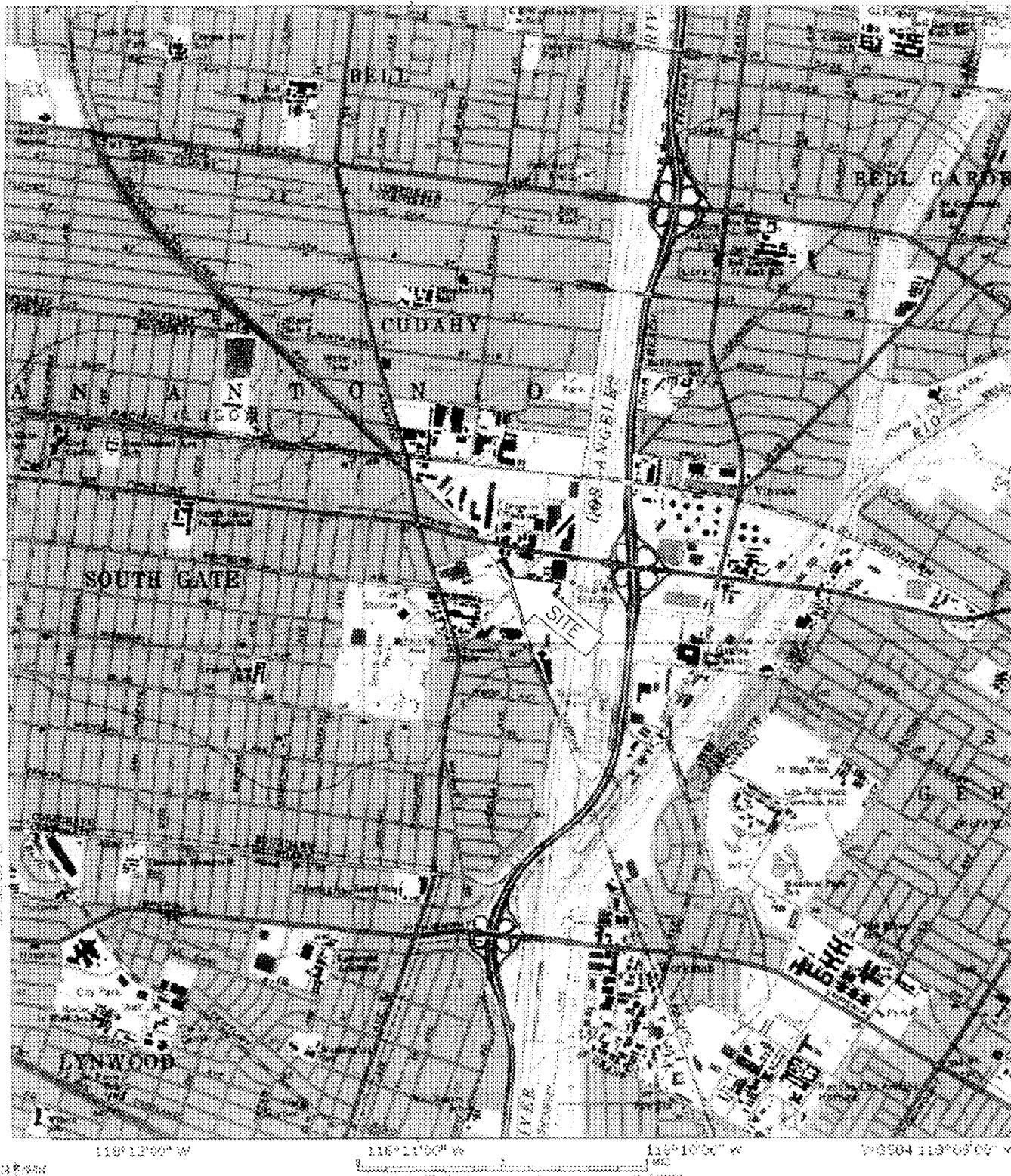
Brown and Caldwell, 2003, Semi-Annual Groundwater Sampling Report – January 2003,  
5030 Firestone Boulevard and 9301 Rayo Avenue, South Gate, California,  
Consultant Report dated January 22, 2003.

Brown and Caldwell, 2002, Semi-Annual Groundwater Sampling Report – July 2002,  
5030 Firestone Boulevard and 9301 Rayo Avenue, South Gate, California,  
Consultant Report dated July 30, 2003.

The IT Group 2002, IT Corporation, Semi-Annual Groundwater Sampling Report – First Semester 2002, Jervis B. Webb Company of California, South Gate, California,  
Consultant Report dated February 28, 2002.

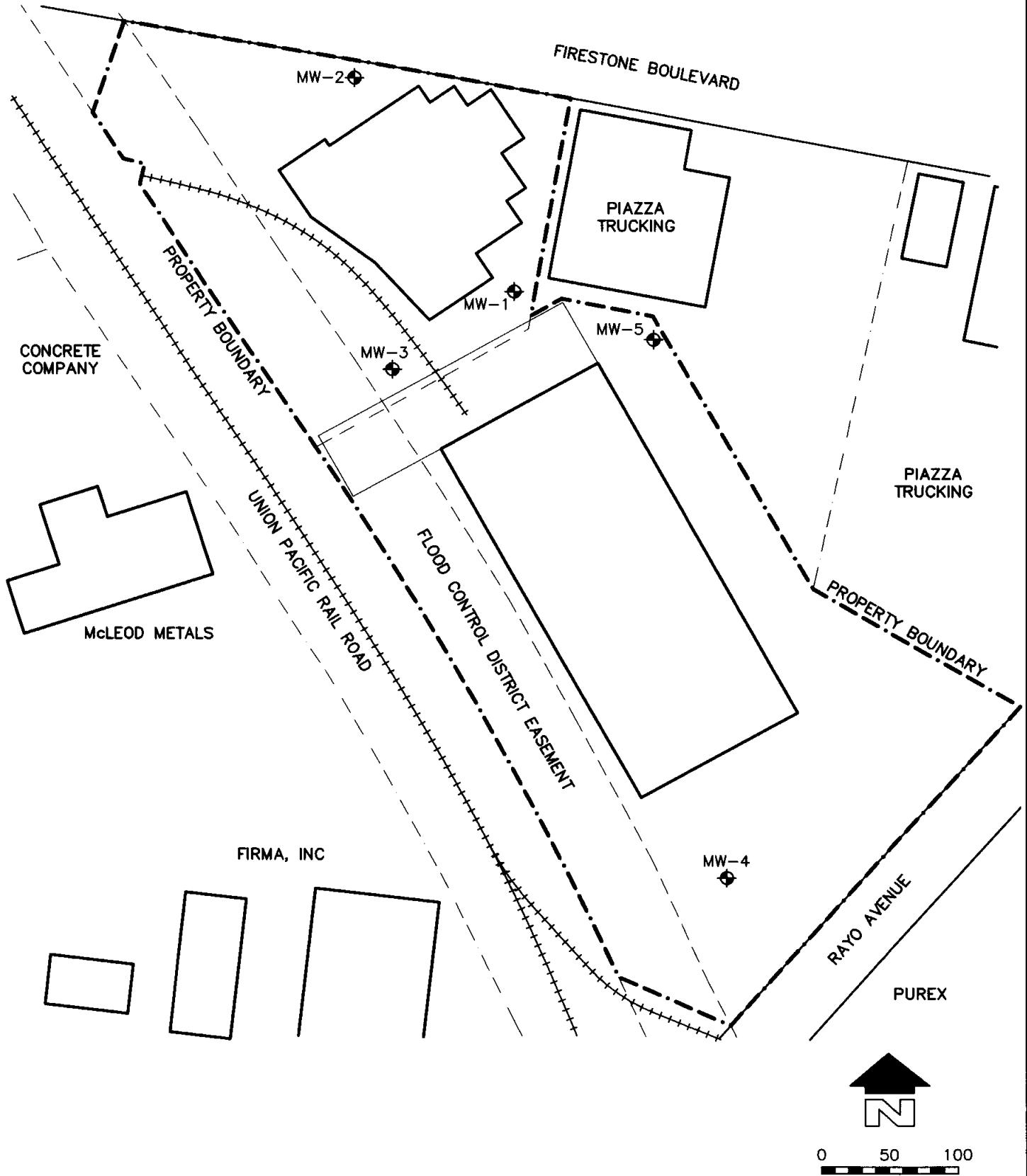
The IT Group 2001, IT Corporation, Soil Closure Report, Jervis B. Webb Company of California, South Gate, California, SLIC File No. 744, Consultant Report dated October 3, 2001.

## **FIGURES**

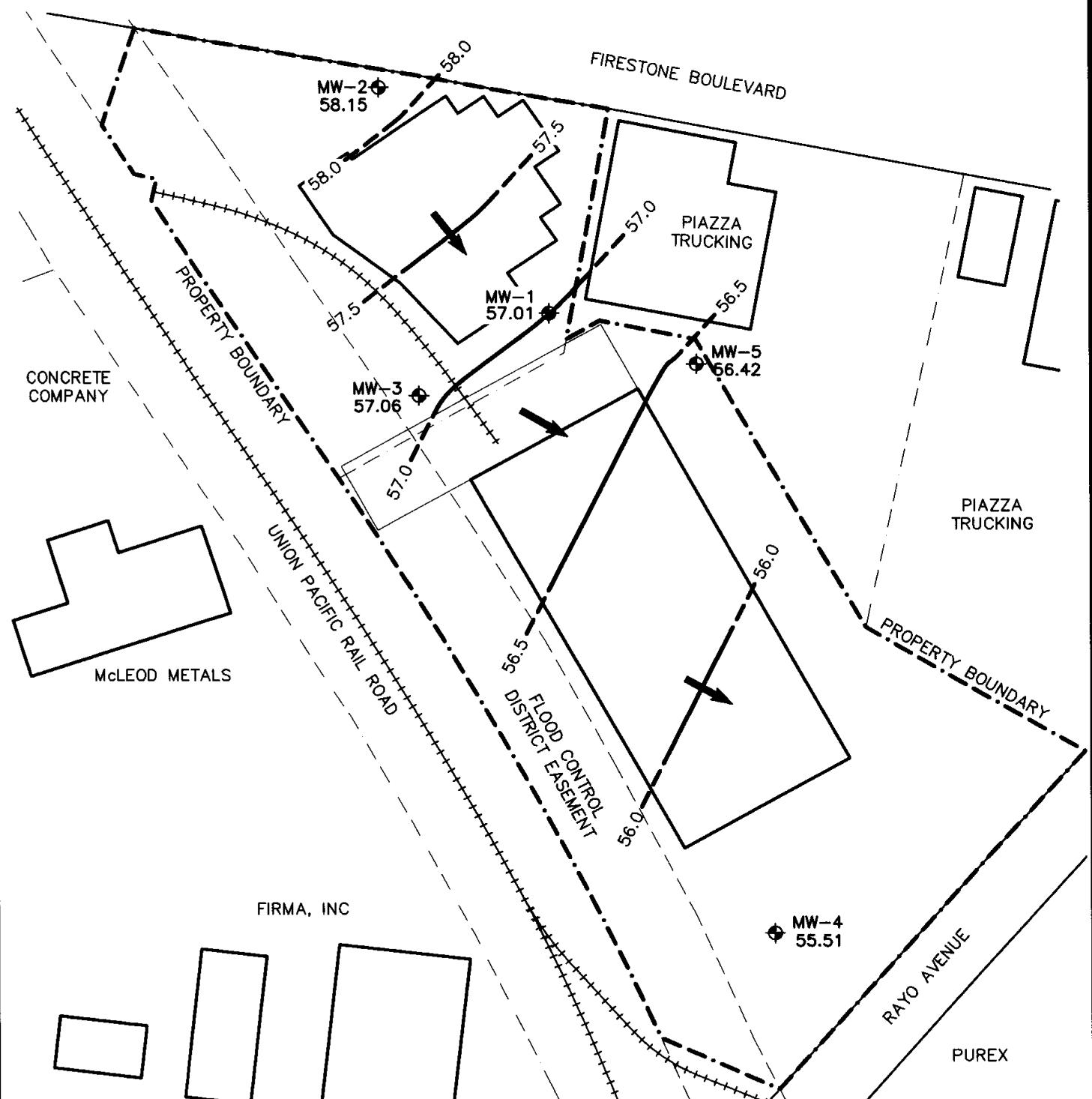


DATE	PROJECT NUMBER	SITE LOCATION	
JULY 2004	22946		
BROWN AND CALDWELL IRVINE, CALIFORNIA	PROJECT LOCATION	JERVIS B. WEBB COMPANY OF CALIFORNIA 5030 FIRESTONE BOULEVARD/9301 RAYO AVENUE SOUTH GATE, CALIFORNIA	FIGURE 1

000689



DATE JULY 2004	PROJECT NUMBER 22946	SITE PLAN	
BROWN AND CALDWELL IRVINE, CALIFORNIA	PROJECT LOCATION JERVIS B. WEBB COMPANY OF CALIFORNIA 5030 FIRESTONE BOULEVARD/9301 RAYO AVENUE SOUTH GATE, CALIFORNIA	FIGURE 2	000690



## LEGEND

—57.0— GROUNDWATER CONTOUR LINE  
(FEET ABOVE MEAN SEA LEVEL)

MW-4 MONITORING WELL LOCATION AND  
DESIGNATION

← GROUNDWATER FLOW DIRECTION

55.51 GROUNDWATER ELEVATION  
(FEET ABOVE MEAN SEA LEVEL)



0 50 100  
Scale: 1 inch = 100 feet

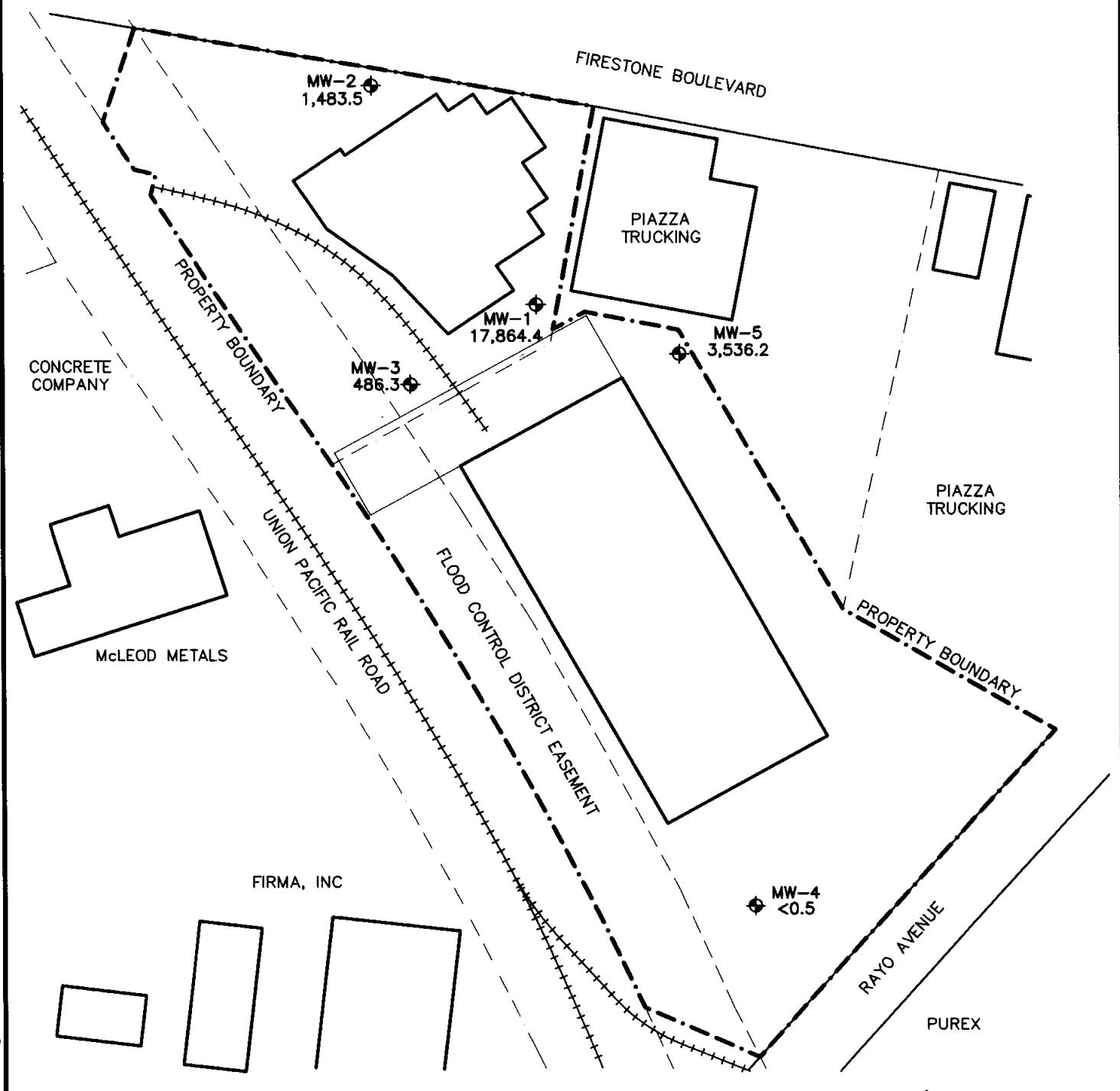
DATE JULY 2004	PROJECT NUMBER 22946
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BROWN AND  
CALDWELL  
IRVINE, CALIFORNIA

### GROUNDWATER CONTOURS JULY 2004

PROJECT LOCATION  
JERVIS B. WEBB COMPANY OF CALIFORNIA  
5030 FIRESTONE BOULEVARD/9301 RAYO AVENUE  
SOUTH GATE, CALIFORNIA

FIGURE  
**3**

**LEGEND**

MW-3 ◆ MONITORING WELL LOCATION AND DESIGNATION

486.3 TRICHLOROETHENE CONCENTRATION BY PDB METHOD ( $\mu\text{g/L}$ )

0 50 100

Scale: 1 inch = 100 feet



DATE	PROJECT NUMBER
JULY 2004	22946

**TCE CONCENTRATION MAP  
JULY 2004**PROJECT  
LOCATIONJERVIS B. WEBB COMPANY OF CALIFORNIA  
5030 FIRESTONE BOULEVARD/9301 RAYO AVENUE  
SOUTH GATE, CALIFORNIA

**BROWN AND  
CALDWELL**  
IRVINE, CALIFORNIA

FIGURE  
**4**

## **TABLES**

**Table 1.**  
**Groundwater Elevations in Monitoring Wells**  
**5030 Firestone Boulevard and 9301 Rayo Avenue**  
**South Gate, California**

		Elevation of Top-of-Casing	Depth to Water	Elevation of Water Surface	
Well ID	Date	(ft amsl)	(ft bgs)	(ft amsl)	Comments
MW-1	02/27/98	106.09	44.79	61.30	
	03/02/98	106.09	44.82	61.27	
	03/04/98	106.09	44.58	61.51	
	04/08/98	106.09	44.57	61.52	
	05/20/98	106.09	43.99	62.10	
	10/08/98	106.09	43.38	62.71	
	11/05/98	106.09	43.14	62.95	
	12/21/98	106.09	43.37	62.72	
	01/19/99	106.09	43.26	62.83	
	02/03/99	106.09	42.98	63.11	
	03/30/99	106.09	43.22	62.87	
	06/01/99	106.09	43.48	62.61	
	07/29/99	106.09	43.82	62.27	
	09/01/99	106.09	43.76	62.33	
	09/23/99	106.09	44.03	62.06	
	10/18/99	106.09	44.43	61.66	
	12/08/99	106.09	44.55	61.54	
	01/27/00	106.09	44.40	61.69	
	02/28/00	106.09	44.34	61.75	
	03/15/00	106.09	44.06	62.03	
	04/13/00	106.09	44.73	61.36	
	05/18/00	106.09	44.58	61.51	
	06/20/00	106.09	44.60	61.49	
	07/13/00	106.09	45.17	60.92	
	08/17/00	106.09	45.30	60.79	
	09/07/00	106.09	45.15	60.94	
	10/26/00	106.09	45.87	60.22	
	11/21/00	106.09	45.60	60.49	
	12/05/00	106.09	45.72	60.37	
	01/04/01	106.09	45.67	60.42	
	02/22/01	106.09	45.43	60.66	
	03/08/01	106.09	45.09	61.00	
	04/24/01	106.09	45.75	60.34	
	06/05/01	106.09	45.52	60.57	
	01/14/02	106.09	46.02	60.07	
	07/02/02	106.09	46.95	59.14	
	12/27/02	106.09	48.18	57.91	
	06/30/03	106.09	48.45	57.64	
	07/11/03	106.09	48.43	57.66	
	06/02/04	106.09	49.22	56.87	
	06/17/04	106.09	49.08	57.01	

**Table 1 (Cont'd).**  
**Groundwater Elevations in Monitoring Wells**  
**5030 Firestone Boulevard and 9301 Rayo Avenue**  
**South Gate, California**

Well ID	Date	Elevation of Top-of-Casing (ft amsl)	Depth to Water (ft bgs)	Elevation of Water Surface (ft amsl)	Comments
MW-2	02/27/98	106.65	44.02	62.63	
	03/02/98	106.65	44.06	62.59	
	03/04/98	106.65	44.13	62.52	
	04/08/98	106.65	NR		Truck parked on well
	05/20/98	106.65	43.51	63.14	
	10/08/98	106.65	42.84	63.81	
	11/05/98	106.65	42.64	64.01	
	12/21/98	106.65	42.69	63.96	
	01/19/99	106.65	42.66	63.99	
	02/03/99	106.65	42.55	64.10	
	03/30/99	106.65	42.63	64.02	
	06/01/99	106.65	42.91	63.74	
	07/29/99	106.65	43.13	63.52	
	09/01/99	106.65	43.14	63.51	
	09/23/99	106.65	43.35	63.30	
	10/18/99	106.65	43.60	63.05	
	12/08/99	106.65	43.62	63.03	
	01/27/00	106.65	43.86	62.79	
	02/28/00	106.65	43.86	62.79	
	03/15/00	106.65	43.62	63.03	
	04/13/00	106.65	43.92	62.73	
	05/18/00	106.65	43.50	63.15	
	06/20/00	106.65	43.48	63.17	
	07/13/00	106.65	43.29	63.36	
	08/17/00	106.65	43.38	63.27	
	09/07/00	106.65	44.30	62.35	
	10/26/00	106.65	44.74	61.91	
	11/21/00	106.65	44.52	62.13	
	12/05/00	106.65	44.51	62.14	
	01/04/01	106.65	44.55	62.10	
	02/22/01	106.65	43.91	62.74	
	03/08/01	106.65	43.25	63.40	
	04/24/01	106.65	44.64	62.01	
	06/05/01	106.65	44.50	62.15	
	01/14/02	106.65	44.90	61.75	
	07/02/02	106.65	45.70	60.95	
	12/27/02	106.65	46.86	59.79	
	06/30/03	106.65	47.83	58.82	
	07/11/03	106.65	47.08	59.57	
	06/02/04	106.65	48.25	58.4	
	06/17/04	106.65	48.50	58.15	

**Table 1 (Cont'd).**  
**Groundwater Elevations in Monitoring Wells**  
**5030 Firestone Boulevard and 9301 Rayo Avenue**  
**South Gate, California**

Well ID	Date	Elevation of Top-of-Casing (ft amsl)	Depth to Water (ft bgs)	Elevation of Water Surface (ft amsl)	Comments
MW-3	02/27/98	105.87	44.55	61.32	
	03/02/98	105.87	44.56	61.31	
	03/04/98	105.87	44.40	61.47	
	04/08/98	105.87	44.39	61.48	
	05/20/98	105.87	43.80	62.07	
	10/08/98	105.87	43.26	62.61	
	11/05/98	105.87	43.60	62.27	
	12/21/98	105.87	43.33	62.54	
	01/19/99	105.87	43.18	62.69	
	02/03/99	105.87	42.97	62.90	
	03/30/99	105.87	43.19	62.68	
	06/01/99	105.87	43.58	62.29	
	07/29/99	105.87	43.85	62.02	
	09/01/99	105.87	43.90	61.97	
	09/23/99	105.87	44.10	61.77	
	10/18/99	105.87	44.37	61.50	
	12/08/99	105.87	44.64	61.23	
	01/27/00	105.87	44.69	61.18	
	02/28/00	105.87	44.75	61.12	
	03/15/00	105.87	44.41	61.46	
	04/13/00	105.87	44.86	61.01	
	05/18/00	105.87	44.94	60.93	
	06/20/00	105.87	44.88	60.99	
	07/13/00	105.87	45.25	60.62	
	08/17/00	105.87	45.06	60.81	
	09/07/00	105.87	44.83	61.04	
	10/26/00	105.87	45.94	59.93	
	11/21/00	105.87	46.00	59.87	
	12/05/00	105.87	45.77	60.10	
	01/04/01	105.87	45.89	59.98	
	02/22/01	105.87	45.53	60.34	
	03/08/01	105.87	45.21	60.66	
	04/24/01	105.87	45.72	60.15	
	06/05/01	105.87	45.74	60.13	
	01/14/02	105.87	45.13	60.74	
	07/02/02	105.87	45.82	60.05	
	12/27/02	105.87	47.68	58.19	
	06/30/03	105.87	48.15	57.72	
	07/11/03	105.87	48.12	57.75	
	06/02/04	105.87	48.81	56.82	
	06/17/04	105.87	49.05	57.06	

**Table 1 (Cont'd).**  
**Groundwater Elevations in Monitoring Wells**  
**5030 Firestone Boulevard and 9301 Rayo Avenue**  
**South Gate, California**

Well ID	Date	Elevation of Top-of-Casing (ft amsl)	Depth to Water (ft bgs)	Elevation of Water Surface (ft amsl)	Comments
MW-4	11/03/98	104.72	42.77	61.93	
	11/05/98	104.72	42.64	62.08	
	12/21/98	104.72	42.93	61.79	
	01/19/99	104.72	42.80	61.92	
	02/03/99	104.72	42.63	62.09	
	03/30/99	104.72	42.89	61.83	
	06/01/99	104.72	43.28	61.44	
	07/29/99	104.72	43.63	61.09	
	09/01/99	104.72	43.70	61.02	
	09/23/99	104.72	43.96	60.76	
	10/18/99	104.72	44.22	60.5	
	12/08/99	104.72	44.48	60.24	
	01/27/00	104.72	44.70	60.02	
	02/28/00	104.72	NR		Truck Parked on well
	03/15/00	104.72	44.37	60.35	
	04/13/00	104.72	NR		Truck Parked on well
	05/18/00	104.72	44.81	59.91	
	06/20/00	104.72	44.94	59.78	
	07/13/00	104.72	45.10	59.62	
	08/17/00	104.72	45.36	59.36	
	09/07/00	104.72	45.31	59.41	
	10/26/00	104.72	45.89	58.83	
	11/21/00	104.72	45.86	58.86	
	12/05/00	104.72	45.71	59.01	
	01/04/01	104.72	45.79	58.93	
	02/22/01	104.72	45.49	59.23	
	03/08/01	104.72	45.62	59.10	
	04/24/01	104.72	45.68	59.04	
	06/05/01	104.72	45.80	58.92	
	01/14/01	104.72	46.23	58.49	
	07/02/02	104.72	46.94	57.78	
	12/27/02	104.72	48.03	56.69	
	06/30/03	104.72	48.13	56.59	
	07/11/03	104.72	48.16	56.56	
	06/02/04	104.72	49.01	55.71	
	06/17/04	104.72	49.21	55.51	

**Table 1 (Cont'd).**  
**Groundwater Elevations in Monitoring Wells**  
**5030 Firestone Boulevard and 9301 Rayo Avenue**  
**South Gate, California**

Well ID	Date	Elevation of Top-of-Casing (ft amsl)	Depth to Water (ft bgs)	Elevation of Water Surface (ft amsl)	Comments
MW-5	11/03/98	106.13	43.32	62.81	
	11/05/98	106.13	43.30	62.83	
	12/21/98	106.13	43.58	62.55	
	01/19/99	106.13	43.46	62.67	
	02/03/99	106.13	43.20	62.93	
	03/30/99	106.13	43.49	62.64	
	06/01/99	106.13	43.88	62.25	
	07/29/99	106.13	44.19	61.94	
	09/01/99	106.13	44.22	61.91	
	09/23/99	106.13	44.48	61.65	
	10/18/99	106.13	44.72	61.41	
	12/08/99	106.13	44.98	61.15	
	01/27/00	106.13	45.17	60.96	
	02/28/00	106.13	45.15	60.98	
	03/15/00	106.13	44.87	61.26	
	04/13/00	106.13	45.22	60.91	
	05/18/00	106.13	45.29	60.84	
	06/20/00	106.13	45.30	60.83	
	07/13/00	106.13	45.63	60.50	
	08/17/00	106.13	45.85	60.28	
	09/07/00	106.13	45.69	60.44	
	10/26/00	106.13	46.35	59.78	
	11/21/00	106.13	46.33	59.80	
	12/05/00	106.13	46.16	59.97	
	01/04/01	106.13	46.26	59.87	
	02/22/01	106.13	46.00	60.13	
	03/08/01	106.13	45.95	60.18	
	04/24/01	106.13	46.19	59.94	
	06/05/01	106.13	46.30	59.83	
	01/14/01	106.13	46.73	59.40	
	07/02/02	106.13	47.41	58.72	
	12/27/02	106.13	48.50	57.63	
	06/30/03	106.13	48.63	57.50	
	07/11/03	106.13	48.85	57.28	
	06/02/04	106.13	49.48	56.65	
	06/17/04	106.13	49.71	56.42	

**NOTES:**

ft amsl = feet above mean sea level

ft bgs = feet below ground surface

NR = Not Recorded

= Not Applicable

1. Monitoring well northing and easting coordinates and top-of-casting elevations for wells MW-1, MW-2, and MW-3 were surveyed on 6 March 1998 by Rattray & Associates, Inc.
2. Monitoring well northing and easting coordinates and top-of-casting elevations for wells MW-4 and MW-5 were surveyed on 21 December 1998 by Rattray & Associates, Inc.

**Table 2.**  
**Results of VOCs Detected in Groundwater Samples**  
**5030 Firestone Boulevard and 9301 Rayo Avenue**  
**South Gate, California**

Well ID	Sample Number	Sample Date	Analyte Concentration ( $\mu\text{L}$ )									
			Benzene	Toluene	1,1-DCA	1,1-DCE	1,2-DCA	c-1,2-DCE	t-1,2-DCE	PCE	TCE	
MW-1	MW-1	03/04/98	<100	<100	<100	220	<100	130	<100	140	24,000	
	MW-1-DUP	03/04/98	<100	<100	<100	210	<100	150	<100	160	25,000	
	MW-1	05/20/98	<125	<125	<125	160	<125	130	<125	<125	24,000	
	MW-1	11/05/98	<125	<125	<125	140	<125	160	<125	170	28,000	
	MW-1	02/03/99	<125	<125	<125	130	<125	160	<125	160	27,000	
	MW-1	06/01/99	<100	<100	<100	140	<100	190	<100	160	28,000	
	MW-1	09/01/99	<100	<100	140	220	<100	200	<100	190	32,000	
	MW-1	12/08/99	<250	<250	<250	<250	<250	<250	<250	<250	30,000	
	MW-1-A <sup>(3)</sup>	12/08/99	<100	<100	110	150	<100	200	<100	160	33,000	
	MW-1	03/15/00	<100	<100	<100	160	<100	230	<100	150	30,000	
	MW-1	06/20/00	<100	<100	<100	<100	<100	<100	<100	<100	24,000	
	MW-1	09/07/00	<100	<100	<100	<100	<100	<100	<100	<100	21,000	
	MW-1	12/05/00	<100	<100	<100	<100	<100	<100	<100	<100	30,000	
	MW-1	03/08/01	<100	<100	<100	<100	<100	<100	<100	<100	23,000	
	MW-1	06/05/01	<125	<125	<125	<125	<125	<125	<125	150	31,000	
	MW-1	01/17/02	<200	<200	49J	47J	<200	520J	<200	65J	15,000	
	MW-1 (PDB-1A)	01/17/02	<200	<200	62J	120J	<200	150J	<200	61J	20,000	
	MW-1 (PDB-1B)	01/17/02	<200	<200	64J	120J	<200	150J	<200	84J	19,000	
	MW-1	07/02/02	<10	<20	48	71	<10	140	<20	72	15,000	
	MW-1-69'	01/10/03	<250	<250	<250	<250	<250	<250	<250	<250	24,000	
	MW-1-69'-D	01/10/03	<250	<250	<250	<250	<250	<250	<250	<250	24,000	
	MW-1	07/11/03	<5	<5	57.9	72.2	<5	133.7	59.3	48.5	15,526.9	
	MW-1 DUP	07/11/03	<5	<5	59.6	72.7	<5	132.9	54	48.9	14,253.3	
	MW-1 (PDB-1B)	07/11/03	<250	<250	<250	<250	<250	<250	<250	<250	25,000	
	MW-1	06/17/04	<50	<50	<50	<50	<50	740.2	104.2	98.5	17,864.4	
MW-2	MW-2	03/04/98	<10	<10	13	34	<10	65	<10	<10	2,700	
	MW-2	05/20/98	<10	<10	14	38	<10	68	<10	<10	3,000	
	MW-2	11/05/98	<10	<10	13	36	<10	68	<10	<10	3,200	
	MW-2	02/03/99	<10	<10	13	36	<10	70	<10	<10	3,200	
	MW-2	06/01/99	<10	<10	12	34	<10	68	<10	<10	2,800	
	MW-2	09/01/99	<10	<10	16	49	<10	72	<10	<10	3,100	
	MW-2	12/08/99	<13	<13	<13	<13	<13	57	<13	<13	2,400	
	MW-2-A <sup>(3)</sup>	12/08/99	<10	<10	12	22	<10	63	<10	<10	2,600	
	MW-2	03/15/00	<10	<10	<10	<10	<10	74	<10	<10	2,800	
	MW-2	06/20/00	<10	<10	<10	<10	<10	46	<10	<10	2,000	
	MW-2	09/07/00	<10	<10	<10	<10	<10	42	<10	<10	1,800	
	MW-2	12/05/00	<10	<10	<10	<10	<10	50	<10	<10	2,300	
	MW-2	03/08/01	<10	<10	<10	<10	<10	44	<10	<10	1,800	
	MW-2-DUP	03/08/01	<10	<10	<10	<10	<10	42	<10	<10	1,600	
	MW-2	06/05/01	<10	<10	<10	<10	<10	47	<10	<10	2,300	
	MW-2	01/17/02	<50	<50	<50	25J	<50	59J	<50	<50	2,000	
	MW-2 (PDB-2A)	01/17/02	<50	<50	<50	32J	<50	46J	<50	<50	1,900	
	MW-2 (PDB-2B)	01/17/02	<50	<50	<50	38J	<50	52	<50	<50	2,300	
	MW-2	07/02/02	<2.5	<5	<5	20	<2.5	50	<5	<5	1,700	
	MW-2-53'	01/10/03	<10	<10	<10	20	<10	46	<10	<10	1,600	
	MW-2	07/11/03	<2.5	<2.5	<2.5	26	<2.5	42.7	<2.5	<2.5	1,051.4	
	MW-2 (PDB-2A)	07/11/03	<10	<10	<10	20	<10	44	<10	<10	1,300	
	MW-2	6/17/2004	<10	<10	<10	<10	<10	70.6	14.5	<10	1483.5	

**Table 2.**  
**Results of VOCs Detected in Groundwater Samples**  
**5030 Firestone Boulevard and 9301 Rayo Avenue**  
**South Gate, California**

Well ID	Sample Number	Sample Date	Analyte Concentration ( $\mu\text{L}$ )								
			Benzene	Toluene	1,1-DCA	1,1-DCE	1,2-DCA	c-1,2-DCE	t-1,2-DCE	PCE	TCE
MW-3	MW-3	03/04/98	<10	13	14	82	<10	200	<10	<10	2,800
	MW-3	05/20/98	<10	<10	13	58	<10	230	15	<10	2,800
	MW-3	11/05/98	<10	<10	11	66	<10	240	18	<10	2,300
	MW-3	02/03/99	<10	<10	11	64	<10	220	18	<10	2,000
	MW-3	06/01/99	<10	<10	11	66	<10	240	18	<10	1,900
	MW-3	09/01/99	<10	<10	13	80	<10	270	20	<10	2,600
	MW-3	12/08/99	<13	<13	<13	<13	<13	220	<13	<13	2,500
	MW-3-A <sup>(3)</sup>	12/08/99	<10	<10	13	55	<10	240	19	<10	2,900
	MW-3	03/15/00	<10	<10	11	61	<10	300	20	<10	3,100
	MW-3	06/20/00	<10	<10	10	<10	<10	170	14	<10	1,900
	MW-3-DUP	06/20/00	<10	<10	11	<10	<10	200	16	<10	2,100
	MW-3	09/07/00	<10	<10	<10	<10	<10	160	<10	<10	1,700
	MW-3-DUP	09/07/00	<10	<10	<10	<10	<10	160	<10	<10	1,700
	MW-3	12/05/00	<10	<10	<10	<10	<10	200	<10	<10	2,400
	MW-3-DUP	12/05/00	<10	<10	<10	<10	<10	210	<10	<10	2,500
	MW-3	03/08/01	<10	<10	<10	55	<10	200	<10	<10	1,700
	MW-3	06/05/01	<10	<10	<10	<10	<10	210	<10	<10	2,300
	MW-3	01/17/02	18J	<50	<50	40J	<50	130	14J	<50	1,200
	MW-3 (PDB-3A)	01/17/02	<50	<50	<50	18J	<50	140	15J	<50	1,700
	MW-3 (PDB-3A)	01/17/02	13J	<50	<50	54	<50	150	17J	<50	1,700
	MW-3	07/02/02	19	40	7.6	38	2.7	170	12	<5	1,500
	MW-3-69'	01/10/03	<10	<10	<10	31	<10	160	10	<10	1,200
	MW-3	07/11/03	<2.5	<2.5	5.1	38.5	<2.5	154.5	8.2	<2.5	902.1
	MW-3 (PDB-3B)	07/11/03	<10	<10	<10	33	<10	160	<10	<10	990
	MW-3	06/17/04	<5.0	<5.0	<5.0	10.2	<5.0	560.5	<5.0	<5.0	486.3
MW-4	MW-4	11/05/98	<0.5	<0.5	<0.5	<0.5	<0.5	0.67	<0.5	<0.5	6.7
	MW-4	02/03/99	<0.5	<0.5	<0.5	<0.5	2.1	<0.5	<0.5	<0.5	<0.5
	MW-4	06/01/99	<0.5	<0.5	<0.5	<0.5	65	1.1	<0.5	<0.5	0.90
	MW-4	09/01/99	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	MW-4	12/08/99	1.2	<0.5	<0.5	<0.5	<0.5	4.1	1.0	<0.5	17
	MW-4-A <sup>(3)</sup>	12/08/99	1.2	<0.5	<0.5	<0.5	<0.5	4.6	1.1	<0.5	18
	MW-4	03/15/00	77	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.68
	MW-4	06/20/00	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	MW-4	09/07/00	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	MW-4	12/05/00	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	MW-4	03/08/01	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	MW-4	06/05/01	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	MW-4	01/17/02	0.28J	<1	<1	1.4	<1	61	6.7	<1	220
	MW-4 (PDB-4A)	01/17/02	<1	<1	<1	<1	<1	<1	<1	<1	0.30J
	MW-4 (PDB-4B)	01/17/02	<1	<1	<1	<1	<1	<1	<1	<1	0.23J
	MW-4	07/02/02	<0.5	<1	<1	<1	<0.5	17	1.3	<1	140
	MW-4 (DUP)	07/02/02	<0.5	<1	<1	<1	<0.5	20	1.6	<1	150
	MW-4-69'	01/10/03	0.64	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	MW-4	07/11/03	<0.5	<0.5	<0.5	<0.5	<0.5	3.4	<0.5	<0.5	34.4
	MW-4 (PDB-4B)	07/11/03	3.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.54
	MW-4	6/17/2004	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

**Table 2.**  
**Results of VOCs Detected in Groundwater Samples**  
**5030 Firestone Boulevard and 9301 Rayo Avenue**  
**South Gate, California**

Well ID	Sample Number	Sample Date	Analyte Concentration (µg/L)								
			Benzene	Toluene	1,1-DCA	1,1-DCE	1,2-DCA	c-1,2-DCE	t-1,2-DCE	PCE	TCE
MW-5	MW-5	11/05/98	<25	<25	<25	42	<25	380	30	<25	5,000
	MW-5-DUP	11/05/98	<25	<25	<25	40	<25	360	29	<25	4,800
	MW-5	02/03/99	<25	<25	<25	49	<25	420	35	<25	5,100
	MW-5-DUP	02/03/99	<25	<25	<25	45	<25	370	31	<25	4,500
	MW-5	06/01/99	<25	<25	<25	52	35	420	36	<25	5,500
	MW-5-DUP	06/01/99	<25	<25	<25	56	39	430	35	<25	5,300
	MW-5	09/01/99	<25	<25	<25	40	<25	420	45	<25	5,500
	MW-5-DUP	09/01/99	<25	<25	<25	69	<25	440	45	<25	6,000
	MW-5	12/08/99	<50	<50	<50	<50	<50	390	<50	<50	5,100
	MW-5-A <sup>(3)</sup>	12/08/99	<25	<25	<25	<25	<25	410	25	<25	5,300
	MW-5-DUP	12/08/99	<50	<50	<50	<50	<50	360	<50	<50	5,000
	MW-5-DUP-A <sup>(3)</sup>	12/08/99	<25	<25	<25	<25	<25	410	26	<25	5,300
	MW-5	03/15/00	<50	<50	<50	<50	<50	440	<50	<50	5,500
	MW-5-DUP	03/15/00	<50	<50	<50	<50	<50	450	<50	<50	5,800
	MW-5	06/20/00	<25	<25	<25	<25	<25	350	<25	<25	4,400
	MW-5	09/07/00	<10	<10	<10	<10	<10	280	<10	<10	3,700
	MW-5	12/05/00	<10	<10	<10	<10	<10	190	<10	<10	4,700
	MW-5	03/08/01	<25	140	<25	<25	<25	260	<25	<25	3,600
	MW-5	06/05/01	<25	<25	<25	<25	<25	340	<25	<25	5,400
	MW-5-DUP	06/05/01	<25	<25	<25	<25	<25	350	<25	<25	5,400
	MW-5	01/17/02	<50	<50	<50	13J	<50	120	13J	<50	1,900
	MW-5 (PDB-5A)	01/17/02	<50	<50	<50	22J	<50	140	18J	<50	3,200
	MW-5 (PDB-5B)	01/17/02	<50	<50	<50	37J	<50	270	29J	<50	4,000
	MW-5	07/02/02	<2.5	7.8	<5	8.9	<2.5	58	8.6	<5	1,700
	MW-5-53'	01/10/03	<50	<50	<50	<50	<50	320	<50	<50	4,700
	MW-5	07/11/03	<2.5	<2.5	6.3	<2.5	<2.5	53.6	7.2	<2.5	1,819.2
	MW-5 (PDB-5A)	07/11/03	<50	<50	<50	<50	<50	340	<50	<50	4,900
	MW-5	06/17/04	<25.0	<25.0	<25.0	27.2	<25.0	1302.4	<25.0	<25.0	3,536.2
CA MCL			1.0	150	5.0	6.0	0.5	6.0	10	5.0	5.0

Notes:  
 1,1-DCA = 1,1-dichloroethane  
 1,1-DCE = 1,1-dichloroethene  
 1,2-DCA = 1,2-dichloroethane  
 c-1,2-DCE = cis-1,2-dichloroethene  
 t-1,2-DCE = trans-1,2-dichloroethene  
 PCE = terachloroethene  
 TCE = trichloroethene  
 VOCs = volatile organic compounds  
 µg/L = micrograms per liter  
 J = value between Reporting Limit and Method Detection Limit  
 B = found in associated method blank  
 PDB = passive diffusion bag

1. Current analyses performed by C&E Laboratories, Inc., in Santa Fe Springs, California using EPA Method 8260 for VOCs.
2. < indicates that the analyte was not detected at a concentration above the indicated method detection limit.
3. Samples collected on 8 December 1999 were initially analyzed on 9 December 1999 and were re-analyzed on 17 December 1999 in an attempt to achieve lower method detection limits.
4. CA MCL = California Maximum Containment Level
5. PDB-1A = PDB hung at bottom of well casing (approximately 68-69 feet)
- PDB-1B = PDB hung at middle of well casing (approximately 52-54 feet)

## **APPENDIX A**

### **LABORATORY ANALYTICAL REPORTS AND CHAIN OF CUSTODY FORMS**

# CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

June 25, 2004

ELAP Certificate No: 2268

Mr. Mike Crews  
Brown and Caldwell  
700 Exchange, Suite 100  
Irvine, CA 92602

Project: JB Webb  
C&E ID: 40618B

Dear Mr. Crews:

Enclosed please find an analytical report for the sample(s) received by Chemical & Environmental Laboratories, Inc. on June 18, 2004, and analyzed as indicated in the chain-of-custody attached.

Unless otherwise noted, no problems were encountered during receiving, preparation and analysis of these samples.

Please call me at (562) 921-8123 if you have any questions regarding this report.

Sincerely,



Larry Zhang, Ph.D.  
Laboratory Director

# CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

## ANALYTICAL REPORT

--- EPA 8260B(VOCs) ---

Page 1 of 2

Client Name: Brown and Caldwell  
 Project Manager: Mike Crews  
 Project Name: JB Webb  
 Sample Matrix: Water

Date Sampled: 06/17/04  
 Date Analyzed: 06/22/04  
 Date Reported: 06/24/04

C&E ID		40618B-4					
SAMPLE ID		MW-4					
DF		1					
COMPOUND	Reporting Limit (ug/L)	RESULT (ug/L or ppb)					
Acetone	2	ND					
Benzene	0.5	ND					
Bromodichloromethane	1	ND					
Bromoform	1	ND					
Bromomethane	1	ND					
2-Butanone (MEK)	2	ND					
Carbon Disulfide	1	ND					
Carbon Tetrachloride	0.5	ND					
Chlorobenzene	0.5	ND					
Chloroethane	1	ND					
Chloroform	1	ND					
Chloromethane	1	ND					
Cyclohexane	0.5	ND					
Dibromochloromethane	1	ND					
1,2-Dibromo-3-Chloropropane	1	ND					
1,2-Dibromoethane	1	ND					
1,2-Dichlorobenzene	0.5	ND					
1,3-Dichlorobenzene	0.5	ND					
1,4-Dichlorobenzene	0.5	ND					
Dichlorodifluoromethane	1	ND					
1,1-Dichloroethane	0.5	ND					
1,2-Dichloroethane	0.5	ND					
1,1-Dichloroethene	0.5	ND					
cis-1,2-Dichloroethene	0.5	ND					
trans-1,2-Dichloroethene	0.5	ND					

To be continued on page 2

# CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

## ANALYTICAL REPORT

--- EPA 8260B(VOCs) ---

Page 2 of 2

Client Name: Brown and Caldwell  
 Project Manager: Mike Crews  
 Project Name: JB Webb  
 Sample Matrix: Water

Date Sampled: 06/17/04  
 Date Analyzed: 06/22/04  
 Date Reported: 06/24/04

C&E ID		40618B-4				
SAMPLE ID		MW-4				
COMPOUND	Reporting Limit (ug/L)	RESULT (ug/L or ppb)				
1,2-Dichloropropane	0.5	ND				
trans-1,3-Dichloropropene	0.5	ND				
cis-1,3-Dichloropropene	0.5	ND				
Ethylbenzene	0.5	ND				
2-Hexanone	0.5	ND				
Methyl Acetate	0.5	ND				
Methylcyclohexane	0.5	ND				
Methylene Chloride	0.5	ND				
4-Methyl-2-Pentanone	0.5	ND				
Styrene	0.5	ND				
Isopropylbenzene	0.5	ND				
4-Isopropyltoluene	0.5	ND				
1,1,2,2-Tetrachloroethane	0.5	ND				
Tetrachloroethene	0.5	ND				
Toluene	0.5	ND				
1,2,4-Trichlorobenzene	0.5	ND				
1,1,1-Trichloroethane	0.5	ND				
1,1,2-Trichloroethane	0.5	ND				
Trichloroethene	0.5	ND				
Trichlorofluoromethane	0.5	ND				
1,1,2-Trichlorotrifluoroethane	0.5	ND				
Vinyl Chloride	0.5	ND				
Total Xylenes	0.5	ND				

Surrogate Compounds	% Surrogate Recovery (70-130)				
Dibromofluoromethane	76				
Toluene-D8	128				
4-Bromofluorobenzene	89				

ND = Not detected at the indicated reporting limit , DF = Dilution Factor, MI = Matrix Interference, unquantifiable; coeluting organics in sample.

14148 E. Firestone Blvd., Santa Fe Springs, CA 90670 Tel: 562 921-8123, Fax: 562 921-7974

000705

# CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

## ANALYTICAL REPORT

--- EPA 8260B(VOCs) ---

Page 1 of 2

Client Name: Brown and Caldwell  
 Project Manager: Mike Crews  
 Project Name: JB Webb  
 Sample Matrix: Water

Date Sampled: 06/17/04  
 Date Analyzed: 06/22/04  
 Date Reported: 06/24/04

C&E ID		40618B-3				
SAMPLE ID		MW-3				
DF		10				
COMPOUND	Reporting Limit (ug/L)	RESULT (ug/L or ppb)				
Acetone	20	ND				
Benzene	5.0	ND				
Bromodichloromethane	10	ND				
Bromoform	10	ND				
Bromomethane	10	ND				
2-Butanone (MEK)	20	ND				
Carbon Disulfide	10	ND				
Carbon Tetrachloride	5.0	ND				
Chlorobenzene	5.0	ND				
Chloroethane	10	ND				
Chloroform	10	ND				
Chloromethane	10	ND				
Cyclohexane	5.0	ND				
Dibromochloromethane	10	ND				
1,2-Dibromo-3-Chloropropane	10	ND				
1,2-Dibromoethane	10	ND				
1,2-Dichlorobenzene	5.0	ND				
1,3-Dichlorobenzene	5.0	ND				
1,4-Dichlorobenzene	5.0	ND				
Dichlorodifluoromethane	10	ND				
1,1-Dichloroethane	5.0	ND				
1,2-Dichloroethane	5.0	ND				
1,1-Dichloroethene	5.0	10.2				
cis-1,2-Dichloroethene	5.0	560.5				
trans-1,2-Dichloroethene	5.0	ND				

To be continued on page 2

# CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

## ANALYTICAL REPORT

--- EPA 8260B(VOCs) ---

Page 2 of 2

Client Name: Brown and Caldwell  
 Project Manager: Mike Crews  
 Project Name: JB Webb  
 Sample Matrix: Water

Date Sampled: 06/17/04  
 Date Analyzed: 06/22/04  
 Date Reported: 06/24/04

C&E ID		40618B-3				
SAMPLE ID		MW-3				
COMPOUND	Reporting Limit (ug/L)	RESULT (ug/L or ppb)				
1,2-Dichloropropane	5.0	ND				
trans-1,3-Dichloropropene	5.0	ND				
cis-1,3-Dichloropropene	5.0	ND				
Ethylbenzene	5.0	ND				
2-Hexanone	5.0	ND				
Methyl Acetate	5.0	ND				
Methylcyclohexane	5.0	ND				
Methylene Chloride	5.0	ND				
4-Methyl-2-Pentanone	5.0	ND				
Styrene	5.0	ND				
Isopropylbenzene	5.0	ND				
4-Isopropyltoluene	5.0	ND				
1,1,2,2-Tetrachloroethane	5.0	ND				
Tetrachloroethene	5.0	ND				
Toluene	5.0	ND				
1,2,4-Trichlorobenzene	5.0	ND				
1,1,1-Trichloroethane	5.0	ND				
1,1,2-Trichloroethane	5.0	ND				
Trichloroethene	5.0	486.3				
Trichlorofluoromethane	5.0	ND				
1,1,2-Trichlorotrifluoroethane	5.0	ND				
Vinyl Chloride	5.0	ND				
Total Xylenes	5.0	ND				

Surrogate Compounds	% Surrogate Recovery (70-130)				
Dibromofluoromethane	115				
Toluene-D8	96				
4-Bromofluorobenzene	125				

ND = Not detected at the indicated reporting limit , DF = Dilution Factor, MI = Matrix Interference, unquantifiable; coeluting organics in sample.

# CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

## ANALYTICAL REPORT

--- EPA 8260B(VOCs) ---

Page 1 of 2

Client Name: Brown and Caldwell  
Project Manager: Mike Crews  
Project Name: JB Webb  
Sample Matrix: Water

Date Sampled: 06/17/04  
Date Analyzed: 06/22/04  
Date Reported: 06/24/04

C&E ID		40618B-2					
SAMPLE ID		MW-2					
DF		20					
COMPOUND	Reporting Limit (ug/L)	RESULT (ug/L or ppb)					
Acetone	40	ND					
Benzene	10.0	ND					
Bromodichloromethane	20	ND					
Bromoform	20	ND					
Bromomethane	20	ND					
2-Butanone (MEK)	40	ND					
Carbon Disulfide	20	ND					
Carbon Tetrachloride	10.0	ND					
Chlorobenzene	10.0	ND					
Chloroethane	20	ND					
Chloroform	20	ND					
Chloromethane	20	ND					
Cyclohexane	10.0	ND					
Dibromochloromethane	20	ND					
1,2-Dibromo-3-Chloropropane	20	ND					
1,2-Dibromoethane	20	ND					
1,2-Dichlorobenzene	10.0	ND					
1,3-Dichlorobenzene	10.0	ND					
1,4-Dichlorobenzene	10.0	ND					
Dichlorodifluoromethane	20	ND					
1,1-Dichloroethane	10.0	ND					
1,2-Dichloroethane	10.0	ND					
1,1-Dichloroethene	10.0	ND					
cis-1,2-Dichloroethene	10.0	70.6					
trans-1,2-Dichloroethene	10.0	14.5					

To be continued on page 2

# CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

## ANALYTICAL REPORT

--- EPA 8260B(VOCs) ---

Page 2 of 2

Client Name: Brown and Caldwell  
 Project Manager: Mike Crews  
 Project Name: JB Webb  
 Sample Matrix: Water

Date Sampled: 06/17/04  
 Date Analyzed: 06/22/04  
 Date Reported: 06/24/04

C&E ID	40618B-2					
SAMPLE ID	MW-2					
COMPOUND	Reporting Limit (ug/L)	RESULT (ug/L or ppb)				
1,2-Dichloropropane	10.0	ND				
trans-1,3-Dichloropropene	10.0	ND				
cis-1,3-Dichloropropene	10.0	ND				
Ethylbenzene	10.0	ND				
2-Hexanone	10.0	ND				
Methyl Acetate	10.0	ND				
Methylcyclohexane	10.0	ND				
Methylene Chloride	10.0	ND				
4-Methyl-2-Pentanone	10.0	ND				
Styrene	10.0	ND				
Isopropylbenzene	10.0	ND				
4-Isopropyltoluene	10.0	ND				
1,1,2,2-Tetrachloroethane	10.0	ND				
Tetrachloroethene	10.0	ND				
Toluene	10.0	ND				
1,2,4-Trichlorobenzene	10.0	ND				
1,1,1-Trichloroethane	10.0	ND				
1,1,2-Trichloroethane	10.0	ND				
Trichloroethene	10.0	1483.5				
Trichlorofluoromethane	10.0	ND				
1,1,2-Trichlorotrifluoroethane	10.0	ND				
Vinyl Chloride	10.0	ND				
Total Xylenes	10.0	ND				

Surrogate Compounds	% Surrogate Recovery (70-130)					
Dibromofluoromethane	128					
Toluene-D8	102					
4-Bromofluorobenzene	128					

ND = Not detected at the indicated reporting limit , DF = Dilution Factor, MI = Matrix Interference, unquantifiable; coeluting organics in sample.

# CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

## ANALYTICAL REPORT --- EPA 8260B(VOCs) ---

Page 1 of 2

Client Name: Brown and Caldwell  
 Project Manager: Mike Crews  
 Project Name: JB Webb  
 Sample Matrix: Water

Date Sampled: 06/17/04  
 Date Analyzed: 06/22/04  
 Date Reported: 06/24/04

C&E ID		40618B-5				
SAMPLE ID		MW-5				
DF		50				
COMPOUND	Reporting Limit (ug/L)	RESULT (ug/L or ppb)				
Acetone	100	ND				
Benzene	25.0	ND				
Bromodichloromethane	50	ND				
Bromoform	50	ND				
Bromomethane	50	ND				
2-Butanone (MEK)	100	ND				
Carbon Disulfide	50	ND				
Carbon Tetrachloride	25.0	ND				
Chlorobenzene	25.0	ND				
Chloroethane	50	ND				
Chloroform	50	ND				
Chloromethane	50	ND				
Cyclohexane	25.0	ND				
Dibromochloromethane	50	ND				
1,2-Dibromo-3-Chloropropane	50	ND				
1,2-Dibromoethane	50	ND				
1,2-Dichlorobenzene	25.0	ND				
1,3-Dichlorobenzene	25.0	ND				
1,4-Dichlorobenzene	25.0	ND				
Dichlorodifluoromethane	50	ND				
1,1-Dichloroethane	25.0	ND				
1,2-Dichloroethane	25.0	ND				
1,1-Dichloroethene	25.0	27.2				
cis-1,2-Dichloroethene	25.0	1302.4				
trans-1,2-Dichloroethene	25.0	ND				

To be continued on page 2

# CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

## ANALYTICAL REPORT

--- EPA 8260B(VOCs) ---

Page 2 of 2

Client Name: Brown and Caldwell  
 Project Manager: Mike Crews  
 Project Name: JB Webb  
 Sample Matrix: Water

Date Sampled: 06/17/04  
 Date Analyzed: 06/22/04  
 Date Reported: 06/24/04

C&E ID		40618B-5				
SAMPLE ID		MW-5				
COMPOUND	Reporting Limit (ug/L)	RESULT (ug/L or ppb)				
1,2-Dichloropropane	25.0	ND				
trans-1,3-Dichloropropene	25.0	ND				
cis-1,3-Dichloropropene	25.0	ND				
Ethylbenzene	25.0	ND				
2-Hexanone	25.0	ND				
Methyl Acetate	25.0	ND				
Methylcyclohexane	25.0	ND				
Methylene Chloride	25.0	ND				
4-Methyl-2-Pentanone	25.0	ND				
Styrene	25.0	ND				
Isopropylbenzene	25.0	ND				
4-Isopropyltoluene	25.0	ND				
1,1,2,2-Tetrachloroethane	25.0	ND				
Tetrachloroethene	25.0	ND				
Toluene	25.0	ND				
1,2,4-Trichlorobenzene	25.0	ND				
1,1,1-Trichloroethane	25.0	ND				
1,1,2-Trichloroethane	25.0	ND				
Trichloroethene	25.0	3536.2				
Trichlorofluoromethane	25.0	ND				
1,1,2-Trichlorotrifluoroethane	25.0	ND				
Vinyl Chloride	25.0	ND				
Total Xylenes	25.0	ND				

Surrogate Compounds	% Surrogate Recovery (70-130)				
Dibromofluoromethane	126				
Toluene-D8	94				
4-Bromofluorobenzene	122				

ND = Not detected at the indicated reporting limit , DF = Dilution Factor, MI = Matrix Interference, unquantifiable; coeluting organics in sample.

# CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

## ANALYTICAL REPORT

--- EPA 8260B(VOCs) ---

Page 1 of 2

Client Name: Brown and Caldwell  
 Project Manager: Mike Crews  
 Project Name: JB Webb  
 Sample Matrix: Water

Date Sampled: 06/17/04  
 Date Analyzed: 06/22/04  
 Date Reported: 06/24/04

C&E ID		40618B-1				
SAMPLE ID		MW-1				
DF		100				
COMPOUND	Reporting Limit (ug/L)	RESULT (ug/L or ppb)				
Acetone	200	ND				
Benzene	50.0	ND				
Bromodichloromethane	100	ND				
Bromoform	100	ND				
Bromomethane	100	ND				
2-Butanone (MEK)	200	ND				
Carbon Disulfide	100	ND				
Carbon Tetrachloride	50.0	ND				
Chlorobenzene	50.0	ND				
Chloroethane	100	ND				
Chloroform	100	ND				
Chloromethane	100	ND				
Cyclohexane	50.0	ND				
Dibromochloromethane	100	ND				
1,2-Dibromo-3-Chloropropane	100	ND				
1,2-Dibromoethane	100	ND				
1,2-Dichlorobenzene	50.0	ND				
1,3-Dichlorobenzene	50.0	ND				
1,4-Dichlorobenzene	50.0	ND				
Dichlorodifluoromethane	100	ND				
1,1-Dichloroethane	50.0	ND				
1,2-Dichloroethane	50.0	ND				
1,1-Dichloroethene	50.0	ND				
cis-1,2-Dichloroethene	50.0	740.2				
trans-1,2-Dichloroethene	50.0	104.2				

To be continued on page 2

# CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

## ANALYTICAL REPORT

--- EPA 8260B(VOCs) ---

Page 2 of 2

Client Name: Brown and Caldwell  
 Project Manager: Mike Crews  
 Project Name: JB Webb  
 Sample Matrix: Water

Date Sampled: 06/17/04  
 Date Analyzed: 06/22/04  
 Date Reported: 06/24/04

C&E ID	40618B-1					
SAMPLE ID	MW-1					
COMPOUND	Reporting Limit (ug/L)	RESULT (ug/L or ppb)				
1,2-Dichloropropane	50.0	ND				
trans-1,3-Dichloropropene	50.0	ND				
cis-1,3-Dichloropropene	50.0	ND				
Ethylbenzene	50.0	ND				
2-Hexanone	50.0	ND				
Methyl Acetate	50.0	ND				
Methylcyclohexane	50.0	ND				
Methylene Chloride	50.0	ND				
4-Methyl-2-Pentanone	50.0	ND				
Styrene	50.0	ND				
Isopropylbenzene	50.0	ND				
4-Isopropyltoluene	50.0	ND				
1,1,2,2-Tetrachloroethane	50.0	ND				
Tetrachloroethene	50.0	98.5				
Toluene	50.0	ND				
1,2,4-Trichlorobenzene	50.0	ND				
1,1,1-Trichloroethane	50.0	ND				
1,1,2-Trichloroethane	50.0	ND				
Trichloroethene	50.0	17864.4				
Trichlorofluoromethane	50.0	ND				
1,1,2-Trichlorotrifluoroethane	50.0	ND				
Vinyl Chloride	50.0	ND				
Total Xylenes	50.0	ND				

Surrogate Compounds	% Surrogate Recovery (70-130)				
Dibromofluoromethane	122				
Toluene-D8	99				
4-Bromofluorobenzene	119				

ND = Not detected at the indicated reporting limit , DF = Dilution Factor, MI = Matrix Interference, unquantifiable; coeluting organics in sample.

14148 E. Firestone Blvd., Santa Fe Springs, CA 90670 Tel: 562 921-8123, Fax: 562 921-7974

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# CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

## QA/QC REPORT

--- EPA 8260B(VOCs) ---

### LCS/LCS Duplicate

Date Performed: 06/22/04

QC Batch #: VOC40622

Unit: ug/L

ANALYTE	SPK CONC	MS	MS %	MSD	MSD %	RPD	ACP %MS	ACP RPD
1,1-Dichloroethene	20	24.68	123.4	24.66	123.3	0.1	70-130	20
Benzene	20	15.79	79.0	14.63	73.2	7.6	70-130	20
Trichloroethene	20	26.04	130.2	25.37	126.9	2.6	70-130	20
Toluene	20	17.18	85.9	18.77	93.9	8.8	70-130	20
Chlorobenzene	20	17.06	85.3	18.70	93.5	9.2	70-130	20

# CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

## METHOD BLANK

--- EPA 8260B(VOCs) ---

Date Performed: 06/22/04  
 QC Batch # VOC40622

COMPOUND	Reporting Limit (ug/L)	RESULT (ug/L or ppb)
Acetone	2	ND
Benzene	0.5	ND
Bromodichloromethane	1	ND
Bromoform	1	ND
Bromomethane	1	ND
2-Butanone (MEK)	2	ND
Carbon Disulfide	1	ND
Carbon Tetrachloride	0.5	ND
Chlorobenzene	0.5	ND
Chloroethane	1	ND
Chloroform	1	ND
Chloromethane	1	ND
Cyclohexane	0.5	ND
Dibromochloromethane	1	ND
1,2-Dibromo-3-Chloropropane	1	ND
1,2-Dibromoethane	1	ND
1,2-Dichlorobenzene	0.5	ND
1,3-Dichlorobenzene	0.5	ND
1,4-Dichlorobenzene	0.5	ND
Dichlorodifluoromethane	1	ND
1,1-Dichloroethane	0.5	ND
1,2-Dichloroethane	0.5	ND
1,1-Dichloroethene	0.5	ND
cis-1,2-Dichloroethene	0.5	ND

COMPOUND	Reporting Limit (ug/L)	RESULT (ug/L or ppb)
trans-1,2-Dichloroethene	0.5	ND
1,2-Dichloropropane	0.5	ND
trans-1,3-Dichloropropene	0.5	ND
cis-1,3-Dichloropropene	0.5	ND
Ethylbenzene	0.5	ND
2-Hexanone	0.5	ND
Methyl Acetate	0.5	ND
Methylcyclohexane	0.5	ND
Methylene Chloride	0.5	ND
4-Methyl-2-Pentanone	0.5	ND
Styrene	0.5	ND
Isopropylbenzene	0.5	ND
4-Isopropyltoluene	0.5	ND
1,1,2,2-Tetrachloroethane	0.5	ND
Tetrachloroethene	0.5	ND
Toluene	0.5	ND
1,2,4-Trichlorobenzene	0.5	ND
1,1,1-Trichloroethane	0.5	ND
1,1,2-Trichloroethane	0.5	ND
Trichloroethene	0.5	ND
Trichlorofluoromethane	0.5	ND
1,1,2-Trichlorotrifluoroethane	0.5	ND
Vinyl Chloride	0.5	ND
Total Xylenes	0.5	ND

ND = Not detected at the indicated reporting limit.

## **CHAIN OF CUSTODY RECORD**

# CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

14148 E. Firestone Blvd., Santa Fe Springs, CA 90670

Tel: (562) 921-8123

Fax: (562) 921-7974

C&E LAB ID

40618B

Company Name:	Brown & Caldwell			Site Address:	5030 Firestone Blvd. Southgate, CA			Page	of					
Project Manager:	Mike Crews							Sample Conditions						
Project No./Name:	JB Webb							<input type="checkbox"/> Chilled	<input type="checkbox"/> Seals Intact					
Tel:	714-730-7600			Fax:				Turn Around Time Desired						
Sampled By:								Normally Same Day / 24hr / 48hr						
SAMPLE ID	SAMPLING DATE	SAMPLING TIME	SAMPLE MATRIX (air/soil/water)	NO. OF CONTAINERS/ TYPE	8015M TPH-G	8015M TPH-D	8021B BTEX MTBE	418.1 TRPH	8260B BTEX OXY.	8260B VOC	CAM METALS	8270C SVOC	6010B LEAD	
MW-1	6/17/04	0745	water	3						X				
MW-2		1028												
MW-3		0825												
MW-4		0915												
MW-5		0942												
Relinquished By: <i>D. Maitta</i>	Date/Time: <i>6/18/04/1000</i>	Received By: <i>E. J. Zagnoli</i>	Date/Time: <i>6-18-04 10:00</i>	EDF Required: (circle)		Yes	No							
Relinquished By:	Date/Time:	Received By:	Date/Time:	Comments:										

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## **APPENDIX B**

### **WELL MONITORING FORMS**

**JB Webb  
5030 Firestone Boulevard & 9301 Rayo Avenue  
South Gate, CA**

Date PDBs Installed: 06/02/04  
Date PDBs Removed: 6-17-04

6-17  
WL

United Motor Club Inc.

323 566 6400

3-new seals (2' well br., 1' origins for bolts.